INCH-POUND

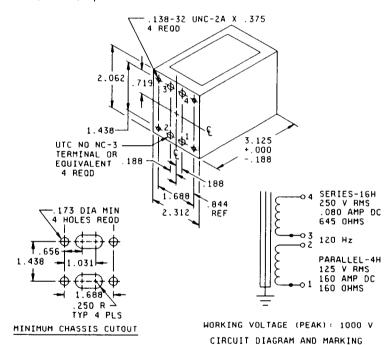
MIL-T-27/209B 3 August 1994 SUPERSEDING MIL-T-27/209A 20 April 1993

#### MILITARY SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS
(AUDIO, POWER AND HIGH-POWER PULSE)
INDUCTOR, POWER, TF4R04FA

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.



Inches	mm	Inches	mm	Inches	mm
.178	4.39	.719	18.26	1.688	42.88
.188	4.78	.844	21.44	2.062	52.37
.250	6.35	1.031	26.19	2.312	58.72
.375	9.52	1.438	36.53	3.125	79.38
.656	16.66				

# NOTES:

- 1. Dimensions are in inches.
- 2. Metric equivalents are given for general information only.
- 3. Unless otherwise specified, tolerance on case dimensions is +.000 (0.00 mm), -.125 (3.18 mm).
- 4. Tolerance on terminal positioning dimensions is  $\pm .125$  (3.18 mm). Terminals fit within minimum chassis cutout.
- 5. Marking shall be on the sides of the case.

FIGURE 1. <u>Dimensions and configurations</u>.

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REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the windings.) Electrical ratings: Inductance (1-4): Series connected: 16 H minimum. Parallel connected: 4 H minimum. Voltage (1-4): Series connected: 250 volts rms. Parallel connected: 125 volts rms. Current (1-4): Series connected: 0.080 ampere dc. Parallel connected: 0.160 ampere dc. DC resistance: (1-2): 324.5 ohms, maximum. (3-4): 385 ohms maximum. Working voltage (peak): 1,000 volts. Power: 2.08 watts maximum (each winding). Design and construction: Dimensions and configuration: See figure 1. Duty cycle: Continuous. Case: Metal encased. Material: Steel. Terminals: Solder terminal, United Transformer Co. NC-3 or equivalent. Terminal height: .469 inch, maximum. Weight: 2 pounds, maximum. Operating temperature range: -55°C to +105°C. Terminal strength: Method 211, MIL-STD-202, test condition A, 5 pounds and test condition E, 8 ounceinches. Dielectric withstanding voltage (at sea level): 2,400 volts rms.

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Series connected: With 250 volts rms, 120 Hz, and 80 mA dc applied to (1-4), the inductance shall

Electrical characteristics:

be 16 H, minimum.

Inductance:

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Parallel connected: With 125 volts rms, 120 Hz, and 160 mA dc applied to (1-4), the inductance shall be 4 H, minimum.

# DC resistance:

(1-2): 324.5 ohms, maximum.

(3-4): 385 ohms, maximum.

Temperature rise:  $40^{\circ}$ C with 250 volts rms, 120 Hz, and 80 mA dc applied to (1-4) with (2-3) connected at an ambient temperature of  $65^{\circ}$ C.

Shock (specified pulse): Method 213, MIL-STD-202, test condition H.

Marking location: See figure 1.

Part or Identifying Number (PIN): M27/209-01.

NOTE: MIL-T-27/209 supersedes MS90009 which is inactive for new design after 28 December 1977. M27/209-01 supersedes MS90009-2.

## CONCLUDING MATERIAL

Custodians:

Army - ER Navy - EC

Air Force - 85

Review activities:

Army - AR, ME, MI, WC Navy - AS, MC, OS, SH Air Force - 17, 19, 99

DLA - ES

Preparing activity: Army - ER

Agent: DLA - ES

(Project 5950-0876)